Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for dynamic latency management in a real-time electronic communication comprising:

measuring, at least twice, an instantaneous communication delay arising from a receiving data buffer ~~two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer~~;

determining a communication delay by averaging the instantaneous communication delay measurements;

selecting a time window defined based on a time necessary to capture a complete cycle of fluctuations in the receiving buffer;

~~accessing~~ determining a ~~predetermined~~ working range for a communication delay by measuring and analyzing delays experienced during the selected time window, the ~~predetermined~~ working range including an upper and lower bound;

comparing the determined communication delay with the ~~predetermined~~ working range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the ~~predetermined~~ working range, determining a latency adjustment necessary to adjust the size of the determined communication delay to within the ~~predetermined~~ working range; and

modifying a number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay;

wherein modifying the number of samples further comprises performing heuristic resampling of a playback block.

2. (Original) The method of claim 1 wherein the number of samples is modified without introducing audible artifacts.

3. (Cancelled)

4. (Cancelled)

5. (Original) The method of claim 1 wherein the real-time electronic communication includes an audio communication.

6. (Cancelled)

7. (Cancelled)

8. (Previously Presented) The method of claim 1 wherein performing heuristic resampling comprises:

analyzing multiple consecutive samples of audio data in the playback block;

identifying consecutive samples with minimal variation in a parameter of their data; and

adjusting the number of samples in the identified consecutive samples.

9. (Original) The method of claim 8 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

10. (Original) The method of claim 8 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

11. (Currently Amended) A computer program, residing on a computer-readable medium, for dynamically managing latency in a real-time electronic communication, comprising instructions for causing a computer to:

measure, at least twice, an instantaneous communication delay arising from a receiving data buffer ~~two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer~~;

determine a communication delay by averaging the instantaneous communication delay measurements;

select a time window defined based on a time necessary to capture a complete cycle of fluctuations in the receiving buffer;

~~access~~ determine a ~~predetermined~~ working range for a communication delay by measuring and analyzing delays experienced during the selected time window, the ~~predetermined~~ working range including an upper and lower bound;

compare the determined communication delay with the ~~predetermined~~ working range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the ~~predetermined~~ working range, determine a latency adjustment necessary to adjust the size of the determined communication delay to within the ~~predetermined~~ working range; and

modify the number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay;

wherein instructions for causing a computer to modify the number of samples further comprise instructions for causing a computer to perform heuristic resampling of a playback block.

12. (Original) The computer program of claim 11 further comprising instructions for causing a computer to modify the number of samples without introducing audible artifacts.

13. (Cancelled)

14. (Cancelled)

15. (Original) The computer program of claim 11 wherein the real-time electronic communication includes an audio communication.

16. (Cancelled)

17. (Cancelled)

18. (Previously Presented) The computer program of claim 11 wherein instructions for causing a computer to perform heuristic resampling comprise instructions for causing a computer to:

analyze multiple consecutive samples of audio data in the playback block;

identify consecutive samples with minimal variation in a parameter of their data; and

adjust the number of samples in the identified consecutive samples.

19. (Original) The computer program of claim 18 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

20. (Original) The computer program of claim 18 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

21. (Currently Amended) A computer system running programmed processes comprising a process for dynamically managing latency in a real-time electronic communication, which process causes the computer system to:

measure, at least twice, an instantaneous communication delay arising from a receiving data buffer ~~two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer~~;

determine a communication delay by averaging the instantaneous communication delay measurements;

select a time window defined based on a time necessary to capture a complete cycle of fluctuations in the receiving buffer;

~~access~~ determine a ~~predetermined~~ working range for a communication delay by measuring and analyzing delays experienced during the selected time window, the ~~predetermined~~ working range including an upper and lower bound;

compare the determined communication delay with the ~~predetermined~~ working range for a communication delay;

if, based on the comparison, the determined communication delay is determined to be outside the upper or lower bound of the ~~predetermined~~ working range, determine a latency adjustment necessary to adjust the size of the determined communication delay to within the ~~predetermined~~ working range; and

modify the number of samples of a playback data block passing through the receiving data buffer based on the latency adjustment determined to be necessary to adjust the size of the determined communication delay;

wherein ~~instructions for causing a computer~~ the process that causes a computer system to modify the number of samples ~~further comprise instructions for causing a computer~~ comprises a process that causes a computer system to perform heuristic resampling of a playback block.

22. (Original) The computer system of claim 21 wherein the number of samples is modified without introducing audible artifacts.

23. (Cancelled)

24. (Cancelled)

25. (Original) The computer system of claim 21 wherein the real-time electronic communication includes an audio communication.

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) The computer system of claim 21 wherein performing heuristic resampling comprises:

analyzing multiple consecutive samples of audio data in the playback block;

identifying consecutive samples with minimal variation in a parameter of their data; and

adjusting the number of samples in the identified consecutive samples.

29. (Original) The computer system of claim 28 wherein adjusting the number of samples comprises removing a sample from the identified consecutive samples.

30. (Original) The computer system of claim 28 wherein adjusting the number of samples comprises adding a sample to the identified consecutive samples.

31-33. (Cancelled)

34. (Currently Amended) The method of claim 1 wherein determining a working range for a communication delay by measuring and analyzing delays experienced during the selected time window comprises ~~further comprising~~:

decreasing the upper and lower bounds of a prior working range conditioned on measuring at least one individual delay that exceeds a threshold amount during the selected time window, and

increasing the upper and lower bounds of the prior working range conditioned on measuring no individual delays during the selected time window.

~~if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decreasing the upper and lower bounds of the predetermined range;~~

~~if no individual delays are measured during the time window, increasing the upper and lower bounds of the predetermined range; and~~

~~modifying the predetermined range based on the decreased or increased upper and lower bounds.~~

35. (Currently Amended) The computer program of claim 11 ~~further comprising~~ wherein the instructions for causing a computer to determine a working range for a communication delay by measuring and analyzing delays experienced during the selected time window comprise instructions for causing a computer to:

decrease the upper and lower bounds of a prior working range conditioned on measuring at least one individual delay that exceeds a threshold amount during the selected time window, and

increase the upper and lower bounds of the prior working range conditioned on measuring no individual delays during the selected time window.

~~if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decrease the upper and lower bounds of the predetermined range;~~

~~if no individual delays are measured during the time window, increase the upper and lower bounds of the predetermined range; and~~

~~modify the predetermined range based on the decreased or increased upper and lower bounds.~~

36. (Currently Amended) The computer system of claim 21 wherein the process for dynamically managing latency ~~further~~ that causes the computer system to determine a working range for a communication delay by measuring and analyzing delays experienced during the selected time window comprises a process for dynamically managing latency that causes the computer system to:

decrease the upper and lower bounds of a prior working range conditioned on measuring at least one individual delay that exceeds a threshold amount during the selected time window, and

increase the upper and lower bounds of the prior working range conditioned on measuring no individual delays during the selected time window.

~~if at least one individual delay is present during the time window, and the individual delay is above zero by a threshold amount, decrease the upper and lower bounds of the predetermined range;~~

~~if no individual delays are measured during the time window, increase the upper and lower bounds of the predetermined range; and~~

~~modify the predetermined range based on the decreased or increased upper and lower bounds.~~

37. (Currently Amended) The method of claim [[1]] 41 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

38. (Currently Amended) The computer program of claim [[11]] 42 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

39. (Currently Amended) The computer system of claim [[21]] 43 wherein a complete cycle of high-to-low fluctuations in the receiving data buffer comprises a cycle that takes into account fluctuations in the data buffer size, the fluctuations being caused by a relationship between the asynchronous processes of receiving data from a source and outputting data for playback.

40. (Currently Amended) A method for dynamic latency management in a real-time electronic communication comprising:

measuring, at least twice, an instantaneous communication delay arising from a receiving data buffer ~~two or more times over a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer~~;

determining a communication delay by averaging the instantaneous communication delay measurements;

~~accessing a predetermined range for a communication delay;~~

selecting a time window defined based on a time necessary to capture a complete cycle of fluctuations in the receiving buffer;

determining a working range for a communication delay by measuring and analyzing delays experienced during the selected time window, the working range including an upper and lower bound;

comparing the determined communication delay with the ~~predetermined~~ working range; [[and]]

making determinations related to latency adjustment based on the comparison; and

modifying data passing through the receiving buffer based on the determinations related to latency adjustment.

41. (New) The method of claim 1 wherein selecting the time window includes selecting a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer.

42. (New) The computer program of claim 11 wherein the instructions for causing a computer to select the time window comprise instructions for causing a computer to select a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer.

43. (New) The computer system of claim 21 wherein the process for dynamically managing latency that causes the computer system to select the time window comprises a process for dynamically managing latency that causes the computer system to select a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer.

44. (New) The method of claim 40 wherein selecting the time window includes selecting a time window that is long enough to capture a complete cycle of high-to-low fluctuations in the receiving data buffer.